

CAIDARZHEV, S.

Some problems in the flotation of oxide lead minerals. p. 22.

TEZHKA PROMISHLENOST. (Ministerstvo na tezhkata promishlenost) Sofiia, Bulgaria.  
Vol. 8, no. 8, Aug. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 9, No. 2, Feb 1960.  
UNCL

GAIDARDZHIEV, St., kand. na tekhn. nauki

On the problem of mechanism of the action of sulfurizators at the flotation of the zinc oxide minerals with collective cations. Min delo 16 no.11:20-24 '61.

1. Minno-geologhki institut.

(Sulfuration) (Zinc)

GAI DOMAKA, M.G.; DROMASHKO, A.S.

An improved virological diagnostic method of influenza. Acta virol.  
6 no.3:284 My '62.

1. Institute of Vaccines and Sera, Kharkov, Ukrainian S.S.R.  
(INFLUENZA diag)

GAIODOV, N.

Two cases of allergic hypersensitivity to PAS. Suvrem. med.,  
Sofia 7 no.7:64-71 1956.

1. Iz Okrushnata bolnitsa-Khaskova.  
(PARA-AMINOSALICYLIC ACID, inj. eff.  
allergy)  
(ALLERGY, etiol. and pathogen.  
PAS)

GALDOV, N.

"More efficient utilization of the means for capital investment."

p.b. (Leka Promishlenost) Vol. 6, no. 11, 1957. Sofia, Bulgaria

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 5 May 1958

GALDOV, N., ANDREEV, L.

Electrophoresis in the treatment of complicated pulmonary tuberculosis.  
Suvrem. med., Sofia 9 no.6:62-70 1958.

1. (Predvaritelno suobshchenie) Iz Okruzhnata bolnitsa v gr. Khaskovo  
(Gl. lekar: N. Petev).

(TUBERCULOSIS, PULMONARY, compl.

severe cough & serous pleurisy, ther. iontophoresis of ethyl-  
morphine & calcium chloride (Bul))

(ION TRANSFER

iontophoresis of ethylmorphine & calcium in ther. of severe  
cough & serous pleurisy in pulm. tuberc. (Bul))

(ETHYLIMORPHINE, ther. use

severe cough in pulm. tuberc., iontophoresis (Bul))

(CALCIUM, ther. use

calcium chloride in serous pleurisy in pulm. tuberc., ionto-  
phoresis (Bul))

GAIDOV, N.N.

Morbidity and mortality from pulmonary tuberculosis in advanced and old age. Suvr. med. (Sofia) 16 no.1:37 '65.

GAIDUK, P. Kh.

Alloplasty of the cruciform ligaments of the knee joint. Ortop., travm.  
i protez. 22 no.8:81 Ag '61. (MIRA 14:12)

(KNEE—SURGERY) (NYLON)

GAIÐUKOV, A. KH., TARVERDYAN, T. N., KOLABSKIY, N. A. and CHIZH, A. N.

"The Development of a Method of Conserving Blood with a View to  
Retaining in it the Viability of the Dog Piroplasmosis and Cattle  
Babiellosis Virus."

Tenth Conference on Parasitological Problems and Diseases with Natural  
Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of  
Sciences, USSR, Moscow-Leningrad, 1959.

Leningrad Veterinary Institute and Leningrad Institute of Blood Transfusion

GAIEA, Gh.; DEMAYO, A. Dr.

Current status and research in problems of permeability. Med. int.,  
Bucur. 9 no.5:656-666 May 57.

1. Incrare efectuatu in Clinica medicala a Spitalului Brincovenesc  
(director: prof. R. Brauner)  
**(CAPILLARY PERMEABILITY**  
physiol. & pathol., research progr.)

STANCULESCU, V.  
Surnames (in caps); Given Names

Country: Rumania

2

Academic Degrees: Prof.

Affiliation: not given

Source: Bucharest, Farmacia, No 5, May 61, pp 267-270.

Data: "Chromatographic Investigations on Liver and Serum Amino-Acids  
in Rats Fed on a Synthetic Dye-Containing Diet."

Co-authors:

✓ STANCULESCU, V. }  
✓ PREDA, N. } [Academic degrees and affiliations not given.]

Z/032/61/011/002/001/013  
E073/E335

AUTHOR: Gaier, J., Engineer

TITLE: Thermal Stresses in Pressure Vessels

PERIODICAL: Strojírenství, 1961, Vol. 11, No. 2,  
pp. 92 ~ 94

TEXT: In stressing pressure vessels with wall temperatures up to  $400^{\circ}\text{C}$ , the yield point  $\sigma_{kt}$  of the material at the given temperature is used in the calculations. For higher wall temperatures the stress  $\sigma$  of the material which causes

$\text{TPt}10^5$  a permanent extension by 1% for stresses of 100 000 hours duration at the design temperature or the creep limit in tension  $\sigma$ , determined with accelerated tests of

$\text{Tt}10^5$  25 and 35 hours duration with a creep rate of  $10 \times 10^{-4} \text{ %/h}$  is applied in the calculations. An increase in temperature brings about a rapid decrease in the creep strength of the material and therefore overheating may easily bring about

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E073/E335

Thermal Stresses in Pressure Vessels

excessive deformation and disintegration of the pressure vessel. Reactor vessels are thermally stressed either by heating the wall from the outside with a heat transfer to the inside or by the reaction heat inside with heat-transfer to the outside. It is desirable that a uniform quantity of heat should pass through the walls per unit of time. Strength calculations were carried out for a pressure vessel with an average wall temperature below 400 °C and it was found that there is an interesting relation between the quantity of heat passed through the wall and the pressure. The equations of Miseses and Lorenz are recommended for determining the wall thickness. Furthermore, the following equation is applied for the steady-state heat transfer through the cylindrical wall of the reactor:

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Z/032/61/011/002/001/013  
E073/E335

Thermal Stresses in Pressure Vessels

$$Q_o = \lambda \frac{2\pi L}{\ln \frac{R_2}{R_1}} \Delta t \quad [\text{kcal/h}]$$

where

$$\Delta t = t_2 - t_1 \quad [{}^{\circ}\text{C}] .$$

For a pressure vessel with a permissible maximum stress  
 $\sigma_{\text{perm}}$  the following expression is obtained:

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Z/032/61/011/002/001/013  
E073/E335

Thermal Stresses in Pressure Vessels

$$p = \frac{k^2 - 1}{k^2 \sqrt{3}} \left[ \sigma_{\text{perm}} = 20 \frac{Q}{\lambda} D_1 \frac{\ln k}{2} \right]$$

$$\cdot \left( \frac{2k^2}{k^2 - 1} - \frac{1}{\ln k} \right)$$

for calculating the internal pressure  $p$ , where  $k = R_2/R_1$ , the ratio of the external to the internal radii.

It follows from this equation that for a given internal diameter  $D_1$  of the pressure vessel, a given material ( $\sigma_{\text{perm}}$ ,  $\lambda$ ) and a given wall thickness  $k = R_2/R_1$ , there is

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Z/032/61/011/002/001/013  
E073/E335

Thermal Stresses in Pressure Vessels

a definite relation between the pressure  $p$  and the quantity of heat  $Q$  which can be transferred per unit of area of the heated surface of the pressure vessel; the greater the amount of heat to be fed into the pressure vessel the smaller will be the permissible pressure. The maximum attainable pressure is calculated by determining the derivation of the above equation, which is equal to zero. It was found that for a given pressure vessel (i.e. for a given diameter and material) and a given quantity of heat to be transferred through the wall there is a maximum pressure which can no longer be influenced by the wall thickness. A diagram of the relations between  $p$ ,  $s$  (wall thickness, mm) and  $Q$  has been calculated for a steel pressure vessel of 350 mm internal diameter,  $t = 400^{\circ}\text{C}$ ,  $\lambda = 40 \text{ kcal/mh}^{\circ}\text{C}$ ,  $Q = 10\,000 \text{ kcal/hm}^2$ . It is pointed out that the influence of holes in the wall or the transition between the walls and the flanges, etc. have been disregarded. In the case of pressure vessels of more

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E073/E335

Thermal Stresses in Pressure Vessels

complicated design, the real wall thickness should be determined on the basis of the influence of the unfavourable sections of the structure.  
There are 3 figures, 1 table and 5 references: 1 Czech and 4 non-Czech.

ASSOCIATION: Spolek pro chemickou a hutní výrobu,  
n.p. Usti n. Labem  
(Association for Chemical and Metallurgical  
Manufacture, n.p. Usti n. Labem)

Card 6/6

GAIGAIAS, A.

Orientation of boulders of Neopleistocene and Mezzopleistocene  
moraines of the middle course of the Neman River and directions  
of glacier movement. Liet ak darbai B no.4:137-146 '59. (EEAI 9:3)

1. Lietuvos TSR Mokslu akademijos Biologijos ir geografijos in-  
stitutas.

(Lithuania-- Boulders) (Lithuania-- Moraines)  
(Neman River) (Glaciers)

GAIGALIENE-SVETLAUSKAITE, B.

Dynamics of arterial tone in hypertensive patients treated  
with mineral baths in Druskininkai spa. Sveik. apsaug. 9  
no.1:23-30 Ja'64.

1. TSRS MMA Lietuvos eksperimentines medicinos instituto  
kurortologijos sektorius.

\*

CANDREA, P.; GAIGINSCHI, Al.; TEODOROVICI, G.; DUCA, E.; STAVRI, N.;  
PENCEA, I.; LASCU, N.

Active artificial immunization against tularemia. Rev. igiena  
microb. epidem., Bucur. no.4:60-68 Oct-Dec 54.

(TULAREMIA, prev. & control  
vacc., comparison of living & killed vaccines, in rats)  
(VACCINES AND VACCINATION  
tularemia vacc. in rats, comparison of living & killed  
vaccines)

GAIINSCHI, A.

Variant of Koch's bacillus obtained by the action of trichloroiodopyridine. R. Cerdiluscu, Marg. Post, A. Gaiinschi, I. Roman, and Tr. Gabureac. (Inst. recherches Chim., Filiale de Jassy). Rev. chim. Acad. rep. populaire Roumaine 1, 33-7 (1960) (in French) -- Sputum samples from a person suffering from pulmonary tuberculosis were kept in contact with aq. solns. of trichloroiodopyridine (I) for varying lengths of time. From sputum kept in a 1% soln. of I for  $\frac{1}{4}$  to 1 hr., a new variant of the tubercle organism was isolated which grew well at 38° on both ordinary and special culture media. The yellowish white colonies were of a creamy consistency and were composed of short acid-resistant cells. This strain was nonpathogenic for lab. animals. Tuberculin prep'd. from this strain in the classical manner produced in tuberculous guinea pigs pos. reactions of the same intensity as classical tuberculin.

Marg L. McFadden

CERNATESCU, R., acad. [deceased]; GAIGINSCHI, A.; PONI, Margareta, prof.;  
TIMOSCA, S.; BOSTAN, M.

Bacteriostatic and bactericidal action of the product PyIBr<sub>3</sub>. Studii  
chemie Iasi 10 no.2:161-167 '59.  
(EEAI 10:1)

1. Academia Republicii Populare Romine, Filiala Iasi; Institutul de  
Chimie "Petru Poni." 2. Membru, Comitetul de redactie, Studii si  
secretari stiintifice, Chimie (for Poni)  
(Bactericidal action)  
(Tribromopyridine) (Iodine)

CERNATESCU, R.; PONI, Margareta, prof.; GAIGINSCHI, Alexandrina; ROMAN, I.; STAVRI, Natalia; TIMOSCA, Sofia; GAVRILITA, Lorica; RADU, C.

Return to pathogenicity of a variant of Koch's bacillus under induction. Studii chim Iasi 11 no.2:171-179 '60.

1. Academia Republicii Populare Romine, Filiala Iasi, Institutul de chimie "Petru Poni." 2. Comitetul de redactie, "Studii si cercetari stiintifice, chimie"(Academia Republicii Populare Romine, Filiala Iasi)(for Poni).

(MYCOBACTERIUM TUBERCULOSIS)  
(IODOTRICHLOROPYRIDINE)

GAIGINSCHI, E.

Realization of a variant of the I. V. Kudriavtsev system for the construction of machines for checking the fatigue of metals. p. 19.

METALURGIA SI CONSTRUCTIA DE MASINI

Vol. 8, no. 3, Mar. 1956

Rumania

Source: EAST EUROPEAN LISTS Vol. 5, no. 10 Oct. 1956

GAIGINSCHI, E.; DUMITRESCU, T.; GUTMAN, M.; ZUGRAVEL, M.; BIRJOIANU, A.

Aspect of the Akulov-Bitter figures in case of plastic deformations.  
Studii fiz tehn Lasi 10 no.1:85-91 '59 (EAI 9:3)

1. Filiala Lasi a Academiei Republicii Populare Romine.  
(Plasticity) (Deformations(Mechanics)) (Colloids)  
(Spectrum analysis) (Magnetic fields)

GAIGINSCHI, Emil, prof.; GUTMAN, M.

On the computation of temperatures at the end of compression and expansion in the theoretical cycles of internal-combustion engines at variable specific heats. Studii fiz tehn Iasi 10 no.2:195-200 '59. (EEAI 9:9)

1. Comitetul de redactie, Studii si cercetari stiintific, Fizica si stiinte tehnice, Filiala Iasi, Academia Republicii Populare Romane (for Gaiginschi)  
(Gas and oil engines)

Gajinski, A.

MD  
The antivitaminic action of two pyridine derivatives (trichloropyridine and trichloroiodoniacin) on nicotinic acid.  
I. Nitulescu, A. Galjinski, G. Teodorovici, Iulia Gheorghiu,  
and I. Pencea. *Comun. Acad. Rep. Populare România* 2, 275-8 (1952).—Trichloropyridine (I) and trichloroiodoniacin  
(II) show antivitaminic properties of the vitamin niacin.  
It appears that one part of niacin is neutralized by 3 parts  
II and 2 parts I. Microbiol. cultures of certain microorgan-

isms show normal growth in the presence of toxic doses of II,  
and toxic doses (3/1000) of nicotinic acid. The reason for  
this reciprocal neutralization remains to be found.

Emanuel Merlinger

GAGINSKI, Alexandrina; ROMAN, I.; STAVRI, Natalia; TIMOSCA, Sofia

Contribution to the study of the problem of the variability of the tuberculosis bacillus. Arch. roum. path. exp. microbiol. 21 no.2: 413-442 '62.

1. Travail de l'Academie Roumaine, Filiale de Fassy — Section de Morphobiologie et de l'Institut Medico-Pharmaceutique de Fassy -- Laboratoire de Microbiologie et la Clinique de Phtisiologie.  
(MYCOBACTERIUM TUBERCULOSIS) (GENETICS)  
(RADIATION EFFECTS) (ULTRAVIOLET RAYS)

PONI, Marguerite P., dr. prof. de chimie inorganica; GAIGINSKI, Alexandrine;  
STRAT, Helene; PETREANU, Viorica; PAVEL, Marianne; BOSTAN, Marcel

Bacteriostatic and bactericide action of the compound 1,8-oxyquinoline ICl<sub>3</sub> in vitro and in vivo. Anal St Jassy I 10 no.1:37-43 '64.

1. University of Iasi, Rumania (for Poni).

Gaik A.

Gail A. "Standardization in the Textile Industry." (Standaryzacja w przemysle włókienniczym). Przemysł Włókienniczy, No. 6, 1949, pp. 164-170, 2 figs., 3 tabs.

Standardisation of operation in the textile industry. The results of standardisation work. The introduction of standards. Classification. Useful properties of fabrics. For example, fabrics made from cotton waste are used.

SO: Polish Technical Abstracts - No. 2, 1951

GAIK, A.

Textile standards; fabrics, p. 662. (POLSKI KOMITET NORMALIZACYJNY, Warszawa, Vol. 22, no. 10, Oct. 1954.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, Jun. 1955, Uncl.

170.1.

CAIK, A. Works of Technical Committee 3<sup>rd</sup> of the International Organization for Standardization on textile products. p. 733. Vol. 23, no. 12, Dec. 1955. NORMALIZACJA. Warsaw, Poland.

SOURCE: East European Accessions List (EEAL) 1C Vol. 5, No. 6, June 1956

GAIK, A.

Control of the quality of textiles in laboratories. Pt.2. p.273.  
NORMALIZACJA (Polski Komitet Normalizacyjny) Warszawa  
Vol. 23, no. 5, May 1955

So. East European Accessions List

Vol. 5, No. 1

Jan. 1956

GAIK, A.

TECHNOLOGY

Periodicals: KONTAKT. Vol. 20, No. 6/7, June/July 1959.

GAIK, A. A discussion of the draft of Standard

PN/P-82009 "Cotton Bedding Textiles." p. 318.

Monthly List of East European Acquisitions(E AL), LC, Vol. 8, No. 2,

February 1959, Unclass.

GAIK, A.

TECHNOLOGY

Periodicals: NORMALIZACJA. Vol. 26, no. 10, Oct. 1958

GAIK, A. Standardization committees of the Polish Committee on Standards in the field of the textile industry. p. 491.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 2,  
February 1959, Unclass.

GAIK, A.

TECHNOLOGY

Periodicals: NORMALIZACJA. Vol. 26, No. 10, Oct. 1958.

GAIK, A. A visit of standardization workers from the German Democratic Republic in Poland. p. 498.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 2,  
February 1959, Unclass.

GAIK, A.; KAWCZYNSKI, H.

A discussion on the draft proposal of standard PN/P-82657, "Silk Lining Fabrics." p. 16.

NORMALIZACJA. (Polski Komitet Normalizacyjny) Warszawa, Poland  
Vol. 27, no. 1, January 1959

Monthly list of East European Accession (EEAI) LC, Vol. 8, no. 7, July 1959

Uncl.

GAIKO, A.A.

[Increasing milk productivity of cows] Povyshenie molochnoi produktivnosti korov; opyt peredovykh kolkhozov. Minsk, Obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii Belorusskoi SSR. 1955. 42 p.  
(Dairying)

PETRISHCHEVA, P.A.; SAF'YANOVA, V.M.; GAIKO, B.A.; NEFEDOV, D.D.

Principles for the control of *Aedes sanguisorbous* mosquitoes.  
Med.paraz.i paraz.bol. 29 no.1:57-60 Ja-F '60. (MIRA 13:10)  
(MOSQUITOES—EXTERMINATION)

GAIKO, I.

"Some Basic Problems of PPR (Planned Preventive Refitting). Tr. from  
the Russian." p. 5,  
(TEZHKA PROMISHLENOST, Vol. 3, No. 2, 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4  
No. 5, May 1955, Uncl.

GAIL, I.

Designing railroad tracts for tunnels having a cross section.

P. 271. (Kozlekedestudomanyi Szemle. Vol. 7, no. 7/8 July/Aug. 1957, Budapest, Hungary)

Monthly Index of East European Accessions (EFAI) LC. Vol. 7, no.2, February 1958

SURNAME, Given Names

Country: Poland

Academic Degrees: not given

Affiliation: not given

Source: Warsaw, Medycyna Weterynaryna, Vol XVII, No 8, August 1961,  
pp 467-468.

Data: "Control of Cattle Tuberculosis on the Terrain of Zakopane."

Authors:

GAILHOFER, Jan

NAWROCKI, Jan

PORAWSKI, Wieslaw.

Q

148

670 981643

GAILIS, J.; SPRIVULIS, Z., red.

[Forest tree breeding and seed plantations] Meza koku selekcija un seklu plantacijas. Riga, Latvijas Valsts izdevnieciba, 1964. 193 p. [In Latvian]

(MIRA 18:7)

LUSIS, Juris; SLEDE, Egons; GAILIS, K., kand. tekhn. nauk, retsenzent;  
SILINS, L., prepodavatel', retsenzent; VULFSONE, E., red.;  
SPORANE, V., tekhn. red.

[Statics of structures] Buvstatika. Riga, Latvijas Valsts  
izdevnieciba, 1961. 346 p. (MIRA 15:2)  
(Structures, Theory of ) (Statics)

GAILITIS, A. (Riga)

Effect of the magnetic field on the border lamella of a diffuser.  
Vestis Latv ak no.12:59-60 '59. (EEAI 9:11)

1. Akademiya nauk Latviyskoy SSR, Institut fiziki.  
(Magnetic fields)

L 3385-66 EWT(1)/ETC/EPF(n)-2/EWG(m)/EPA(w)-2 IJP(a) AT

ACCESSION NR: AP5023288

UR/0371/85/000/004/0013/0017 57

AUTHOR: Gailitis, A. (Gaylitis, A.)

44,55  
48  
8

TITLE: The instability of homogeneous plasma turbulence

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 4, 1965, 13-17

TOPIC TAGS: plasma electromagnetics, turbulent plasma, plasma wave

ABSTRACT: The article attempts to show mathematically that at a given stage of turbulence development, instability can appear in the spatially homogeneous distributions of plasma density and the energy of the turbulent vibrations. The work does not attempt a complete solution of the problem of the motion of a turbulent plasma, but rather tries to set up sufficient conditions for instability. It does not determine exactly the time required for the development of turbulence nor the final state of the plasma after complete development of instability. It is demonstrated mathematically that, roughly speaking, instability sets in when the ratio of the energy of the plasma waves and the energy of the thermal motion of the plasma reaches the magnitude:

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L 3385-66

ACCESSION NR: AP5023288

9

$$8 \left( 1 - \frac{\omega_0^2}{\omega^2} \right) = 24 u_r^2 \left( \frac{k^2}{\omega_0^2} \right).$$

"The author wishes to express his deep indebtedness to V. N. Tsytovich for his direction of the work and to A. A. Vedenov for his valuable observations."  
Orig. art. has: 10 formulas and 1 figure 44,55

ASSOCIATION: Institut fizkiki AN Latv. SSR (Institute of Physics, AN LatSSR)

SUBMITTED: 16Jan65

ENCL: 00

SUB CODE: ME

NR REF SOV: 005

OTHER: 001

44,55

Card 2/2 md

GAILLY, P.

Direct flaps in the treatment of cutaneous defects in the extremities.  
Lek. listy, Brno 6 no.20:607-613 15 Oct 51. (CIML 21:4)

1. Of the State Institute of Plastic Surgery (Head--Docent Vaclav Karfik, M.D.), Brno.

GAIL-PECZALSKA, Kazimiera; KAPUSCINSKA-CZERSKA, Wanda; KARLOWICZ, Karola;  
KLON, Maria

Adrenogenital syndrome with electrolyte disorders in siblings. Pediat.  
pol. 37 no.10:1059-1066 0 '62.

1. Z I Kliniki Chorob Dzieci AM w Warszawie. Kierownik: prof. dr med.  
R. Baranski i z Miejskiego Szpitala Dzieciecego w Warszawie -- Saska  
Kepa. Dyrektor: dr med. S. Bielobradek.

(ADRENOGENITAL SYNDROME) (ELECTROLYTES)

GAIL-PECZALSKA, Kazimiera; WORONIECKI, Narcyz

A case of liver cirrhosis in a 2-month-old infant. Pediat.  
pol. 38 no.6:587-591 Je '63.

1. Z Kliniki Chorób Zakaźnych Wieku Dziecięcego AM w Warszawie  
Kierownik: prof. dr J. Bogdanowicz i z pracowni Anatomopato-  
logicznej Miejskiego Szpitala Dziecięcego na Saskiej Kępie w  
Warszawie Dyrektor: dr S. Bielobradek.  
(LIVER CIRRHOSIS)

GAIN, M.I.; MYASNIKOVA, M.L.

How to improve medical service among workers and employees of industrial enterprises of the Republic. Zdrav. Bel. 7 no.6:3-6 Je '61.

(MIRA 15:2)

1. Nachal'nik Upravleniya lechprofomoshchi Ministerstva zdravookhraneniya BSSR (for Gain). 2. Starshiy inspektor lechprofomoshchi Ministerstva zdravookhraneniya BSSR (for Myasnikova).

(WHITE RUSSIA MEDICINE, INDUSTRIAL)

GAIN, M.I.; DEMIDCHIK, Ye.P.

Prolonged intravenous thiopental and alcohol anesthesia combined with local novocaine anesthesia. Zdrav. Bel. 9 no.7:  
68-70 Jl<sup>e</sup>63 (MTRA 17:4)

1. Iz khirurgicheskogo otdeleniya (zav. - Yu. N. Murashov)  
Mogilevskoy oblastnoy bol'nitsy (glavnnyy vrach - zasluzhennyy  
vrach BSSR S.T. Il'in).

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000614010013-5

GAINA, N.; FACAORU, I.

Testing of a spatial girder from reinforced concrete for a new type of floor.p. 74.  
(Industria Comstructiilor Si A Materialelor De Constructii, No. 2, 1957,  
Bucuresti, Rumania)

SO: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 8, Aug 1957. Uncl.

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000614010013-5"

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000614010013-5

GAINA, Stelian

Extension of vector measures. Rev math pures 8 no.1:151-154 '63.

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000614010013-5"

DEMA, I.; DUMITRU, M.; GIRD, E.; GAINAR, E.; RUSI, A.; SPIRIDON, St.;  
SABAU, G.; CONSTANTINESCU, O.; IONESCU, S.

Contributions to the utilization of organic solvents as eluting  
agents in cation exchange. II. On the possibilities of a selective  
elution of lanthanides. Studii cerc fiz 11 no.2:397-405 '60.

(EEAI 10:1)

(Solvents) (Elution) (Rare-earth metals)  
(Base-exchanging compounds) (Organic compounds)

GAINAR, I.; GAINAR, E.

Behavior of the elements in microscopic quantities in ion exchange. I.  
Influence of the quantity of absorbed ions in the resin on the  
position of the maximum elution curve. Studii cerc fiz 11 no.2:407-  
422 '60.

(Ion exchange) (Absorption)  
(Gums and resins, Synthetic) (Elution)

GAINAR, I.; GAINAR, E.

On the characteristics of the elements in polyion exchange.  
Studii cerc fiz 13 no.6:865-878 '62.

1. Institutul de fizica atomica Bucuresti.

GAINAR, I.

The possibility of separation of some ions on the Romanian cation-exchanger R-21. Silvia Ionescu, Olimpia Constantinescu, Ion Gainar, Mihai Mihalciu, and Dumitru Topor. Acad. rep. populară Române, Studii cercetărî chim. 8, 313-19(1957).—The R-21 cation exchanger (sulfonated  $\text{PbOH}-\text{HCHO}$ ) is a high-d. resin with a low water regalm. The absorption capacity is of the order of 2 meq./g. dry resin, which is similar to the resins of this type. The selectivity of the resin is sufficient for the sepn. of pairs of ions with similar properties. The elutions are selective for the sepn. of similar cations. C. Heitner-Wigand

b

GW  
1/1

GAINAR, I.

RUMANIA / Analytical Chemistry--Analysis of  
inorganic substances.

E-2

Abs Jour : Referat Zhur--Khimia, No. 11, 1959, 38275  
Author : Ionescu, S.; Constantinescu, O., Gainar, I.,  
Mihalcu, M.; and Topor, D.  
Inst : Not given  
Title : Investigation of the Possibility of Separating  
Some Ions on Rumanian Type R-21 Cation Exchange  
Resins.  
Orig Pub : Studii si Cercetari Chim 6, No. 2, 313-319 (1958)  
(in Rumanian with French and Russian summaries)  
Abstract : The authors have determined conditions for the  
resolution of 4 pairs of cations using Rumanian-  
made type R-21 cation exchange resin, obtained  
by the polycondensation of p-phenolsulfonic  
acid (1 mol) with  $\text{CH}_2\text{O}$  (1.3 mol) in the presence

Card 1/3

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RUMANIA / Analytical Chemistry--Analysis of  
inorganic substances.

E-2

Abs Jour : Referat Zhur--Khimiya, No. 11, 1959, 38275

of  $H_2SO_4$  without the use of pressure or distillation. The ion exchange capacity of the R-21 resin is about 2 mequiv/gm, calculated on a dry resin basis; the density of the resin is 1.4852 gm/cm<sup>3</sup>, moisture content 7.8%, and swelling factor 1.31. Before utilization the cation exchange resin is put in the H form by washing with an HCl solution. Good results were obtained from the resolution of the following ion pairs:  $Na^+$ - $K^+$  (elution with 0.05-1 N HCl; column dimensions 1 x 103 cm; resin grain size 0.2-0.3 mm),  $Ca^{2+}$ - $Ba^{2+}$  (0.3 M solution of ammonium citrate at pH 5; 1.5x 24 cm; 0.4-0.5 mm),  $La^{3+}$ - $Ce^{3+}$  (ammonium citrate solution of pH 3.2; 1x 105 cm; 0.1-0.2 mm), and  $Th^{4+}$ - $UO_2^{2+}$  (1 N HCl;

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**APPROVED FOR RELEASE: 09/17/2001** CIA-RDP86-00513R000614010013-5"

Abs Jour : Referat Zhur--Khimiya, No. 11, 1959, 38275

1x13 cm; 0.25 mm). A flow rate of 10-15 drops per min is used for the solution to be analyzed and for the eluent. -- B. Manole

Card 3/3

GAINAR, I.; GAINAR, E.

Behavior of the elements in microscopic quantities in ion exchange. I.  
Influence of the quantity of absorbed ions in the resin on the  
position of the maximum elution curve. Studii cerc fiz 11 no.2:407-  
422 '60.

(Ion exchange) (Absorption)  
(Gums and resins, Synthetic) (Elution)

R/003/60/011/005/011/023  
A125/A026

AUTHORS: Dema, I.; Găinar, I.; Născuțiu, T.

19

TITLE: The Utilization of Cobalt Hexamine Traced With  $^{60}\text{Co}$  for the Radio-metric Determination of Source Elements. I. Determination of Beryllium and Bismuth.

PERIODICAL: Revista de Chimie, 1960, Vol. 11, No. 5, pp. 291 - 293

TEXT: Since 1953, cobalt hexamine traced with  $^{60}\text{Co}$  was used by different scientists such as Ishimori (Refs. 1, 2 and 3), Takashima (Refs. 4 and 5) and Yatsimirskiy and his co-workers (Ref. 6) for the radiometric determination of very small quantities of elements (micrograms and even sub-micrograms). The authors recommend the determination of beryllium and bismuth with the same reagents. 1) Determination of beryllium: In 1956, Th. Pirtea and his co-workers developed a method for the gravimetric determination of beryllium under the complex combination:  $[(\text{H}_2\text{O})_2 \text{Be}_2 (\text{CO}_3)_2(\text{OH})_3] [\text{Co}(\text{NH}_3)_6] \cdot 3\text{H}_2\text{O}$  [7.8]. The smallest quantities of beryllium determined were around  $500 \mu\text{g}$ . By using cobalt hexamine traced with  $^{60}\text{Co}$ , the method could be extended to the determination of Be quantities up to  $5 \mu\text{g}$ , without using a primer. The apparatus, the reagents,

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R/003/60/011/005/011/023  
A125/A026

The Utilization of Cobalt Hexamine Traced With  $^{60}\text{Co}$  for the Radiometric Determination of Source Elements. I. Determination of Beryllium and Bismuth

the necessary solution and the operation method are described. Table 1 presents the results obtained with the solution prepared by the author. 2) Determination of bismuth: Bi has been determined on the basis of the method recommended by A. Pop (Ref. 9) with the complex combinations  $[\text{BiCl}_6]$   $[\text{Co}(\text{NH}_3)_6]$ . Reference is made to the reagents and solutions used and to the operation method. The results obtained are presented in Table 3. A future article will describe the possibilities of using the recommended methods for the determination of these elements in different products. There are 3 tables, 1 figure and 9 references: 5 Japanese, 3 Rumanian and 1 Soviet.

Card 2/2

FITI, Maria; GAIMAR, I.; GHERGHESCU, Illeana; GIRD, E.

Possibility of applying ion exchangers in the catalytic reaction  
of acetylene hydration. Studii cerc chimie 10 no.2:243-249 '62.

1. Institutul de fizica atomica, Bucuresti.

GAINAR, I.; GAINAR, E.

On the characteristics of the elements in polyion exchange.  
Studii cerc fiz 13 no.6:865-878 '62.

1. Institutul de fizica atomica Bucuresti.

STROESCU, V., dr.; TENESCU, C., dr.; GAINARU, Paula, dr.

The treatment of urinary and biliary infections with cycloserine.  
Med. intern. 15 no.2:229-234 F '63.

1..Lucrare efectuata in Sectia medicala a Spitalului "Bucur",  
Bucuresti.  
(BILIARY TRACT) (INFECTION) (URINARY TRACT INFECTIONS)  
(CYCLOSERINE)

GAINGINSCHI, Alexandrina; PETREANU, Viorica; TIMOSCA, Sofia; RADU, C.;  
BURCOVEANU, Constanza; IONESCO, Michaela; MURGESCU, Tantzi.

Dissociation of the BCG strain under the action of heat.  
Arch. roum. path. exp. microbiol. 23 no.3:617-622 S'63

1. Travail de l'Academie de la Republique Populaire Roumaine;  
Section de Biomorphologie et de l'Institut Medico-Pharmaceutique de Jassy; Laboratoire de Microbiologie.

CAINKO, N.K.; DOROGOCHINSKIY, A.Z.

Separation of propylene from the propane-propylene cracking fraction in a stationary bed of zeolites. Khim. i tekhn. topl. i masel 10 no.11:28-32 N '65. (MIRA 1981)

1. Groznenskiy neftyanoy institut.

GAINTEV, Yu. V.

"On increasing the reliability of operation of asynchronous motors on two phases,"  
(2-phase operation of 3-phase motors is more favorable if the stator windings are  
star connected), Industrial Power, 7th edition, 1952.

GAINSEV, Yu. V.

GAINSEV, Yu. V. - "Investigation of low-power compound synchronous machines".  
Sverdlovsk, 1955. Min Higher Education USSR. Ural Polytechnic Inst imeni  
S. M. Kirov. (Dissertation for the Degree of Candidate of Technical Sciences).

SO: Knizhnaya Letopis' No. 46, 12 November 1955. Moscow

GAINTSEV, Yu.V., kandidat tekhnicheskikh nauk.

Automatic voltage regulator for small high-speed generators.  
Energetik 4 no.8:7-9 Ag '56. (MLRA 9:10)  
(Electric generators) (Voltage regulators)

GAINTSEV, Yu. V.  
GAINTSEV, Yu.V.

New systems of excitation for synchronous generators. Prom. energ.  
12 no.12:25-26 D '57. (MIRA 10:12)  
(Electric generators)

GAINTSEV, Yu.V., kand.tekhn.nauk

Choice of the size of the air gap in two-pole asynchronous  
motors with power ratings up to 100 kw. Vest. elektroprom.  
31 no.8:62-66 Ag :60. (MIRA 15:5)  
(Electric motors, Induction)

GAINSEV, Yu.V., kand. tekhn. nauk

Effect of total additional losses on the actual efficiency of  
asynchronous motors. Elektrotehnika 35 no.5:18-20 My'64  
(MTRA 17:8)

GAINTEEV, Yu.V., kand. tekhn. nauk

Determination of additional losses during the idle operation  
of an asynchronous motor. Elektrotehnika 36 no.8:30-31 Ag '64.  
(MIRA 17:9)

GAINTEV, Yu.V., kand.tekhn.nauk

Components of total additional losses of asynchronous short-circuited motors with power ratings up to 100 kw. Elektrotehnika  
(MIRA 18:4)  
35 no.12:1-3 D '64.

GAINTEV, Yu.V., kand.tekhn.nauk

Errors of the reverse rotation method for determining the  
additional losses of asynchronous short-circuited motors.  
Elektrotehnika 36 no.2:38-40 F '65. (MIRA 18:4)

BURLAKOVA, Ye.B.; GAINTSEVA, V.D.; SLEPUKHINA, L.V.; KHRAPOVA, N.G.;  
EMANUEL', N.M.

Antiradical activity and radioprotective properties of the inhibitors  
of free radical reactions. Dokl. AN SSSR 155 no.6:1398-1400 Ap  
'64. (MIRA 17:4)

1. Chlen-korrespondent AN SSSR (for Emanuel').

L 24209-65 EWT(l)/EWT(m)/T-2/EWP(h) RM

S/0020/64/155/006/1398/1400

ACCESSION NR: AP4034040

AUTHOR: Burlakova, Ye. B.; Gaintseva, V. D.; Slepukhina, L. V.; Khrapova, N. G.;  
Emanuel', N. N. (Corresponding member)

TITLE: Antiradical activity and radiation-protective effect of inhibitors of free-radical reactions

SOURCE: AN SSR. Doklady\*, v. 155, no. 6, 1964, 1398-1400

TOPIC TAGS: antiradical activity, radiation effect, radiation protection, free radical, free radical reaction, antioxidant, alkylated phenol derivative, alkylated amine derivative, arylated amine derivative, alkylated aminoalkylglyidine derivative

ABSTRACT: Earlier work on this effect in protecting mice against lethal radiation is cited. The present work aimed at establishing the relation between the activity of nontoxic doses of these inhibitors and survival of the animals, expressed as antiradical activity A, as product of its relative effectiveness &

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L 24209-65

ACCESSION NR: AP4034040

(chemical) and concentration  $c$ :  $A = \epsilon c$ . The tests were conducted on 1526 mice irradiated with lethal doses, treated with one of 9 preparations injected intra-abdominally 15-45 minutes before irradiation. Their structural formulas, value  $\epsilon$  and survival rate of the mice so treated are tabulated. These chemicals have in common the ability to accept free radicals. The antiradical activity is graphed and presents a simple linear function (up to 60% survival).  $A$  depends either on  $\epsilon$  or on the toxicity of the agent, so that the concentration of the latter can be increased. The ratio of optimal radiobiological dose to maximal tolerance varies considerably; it is 1 for some, often considerably lower. For 2, 4-di-tert-butyloxytoluene the optimal dose was 50 mg/kg while 100 mg/kg results in zero survival; the maximal tolerated dose is 400 mg/kg [sic]. For 3-oxy-2,4-di-trimethylpyridine (64% survival rate) the optimum is 200 mg/kg, maximum tolerated 250 mg/kg. Thus, not only relative effectiveness and maximal tolerated dose, but also a value characterizing the reactive ability and toxicity of the accumulated radicals from the inhibitor ( $R' + HIn \rightarrow RH + In$ )

Card 2/3

L 24209-65

ACCESSION NR: AP4034040

7

have to be considered in such experiments. It is concluded that the inhibitors tested are promising radiation-protective substances. "The authors wish to thank I. S. Belostotska, A. A. Volod'kin, K. M. Dymaev, A. I. Zlobin, V. V. Ershov, G. A. Nikiforov, L. D. Smirnov who synthesized the compound used in this work." Orig. art. has: 1 table and 1 figure

ASSOCIATION: none

SUBMITTED: 02Aug63

ENCL: 00

SUB CODE: LS, Gc

NO REF SOV: 005

OTHER: 003

Card 3/3

DOKL. AN SSSR 164 no.4:934-936 0  
BUDANOV, Yu.B.; GALTSEVA, V.D.; SLEPOUKHOV, I.I.; ZHURAVLA, N.L.; EMANUEL',  
N.M.

Relation between the radioprotective and antineoplastic effects  
of inhibitor-antioxidants. Dokl. AN SSSR 164 no.4:934-936 0  
(MIRA 18:10)  
'65.

1. Oh en-kerrespondent AN SSSR (for Emanuel').

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000614010013-5

GAINULLIN, T.R., (Candidate of Veterinary Sciences, Bashkir Scientific Research Veterinary-Bacteriological Laboratory)

"Complement fixation reaction in the diagnosis of paratuberculosis"

Footnote:: Reported at the Conference of Veterinary Surgeons of Bashkiriya, May 19, 1961.

Veterinariya, Vol 39, no 1., Jan 1962. pp 30

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000614010013-5"

GAINULLINA, R.G.

RODIGIN (M. N.) & GAINULLINA (Mmo R. G.). Влияние тепловой обработки семян на сортовую устойчивость Проса к пыльной гнили. [The effect of heat treatment of seed on varietal resistance of Millet to loose smut.]—

Земледелие [Zemledelie, Moscow], 2, 3, pp. 105-106, 1954.

In recent experiments in the U.S.S.R. heat treatment of millet (*Pennisetum milletaceum*) seed (hot air at 40° C. or hot water at 100° followed by cold water) increased both resistance to loose smut (*Sphacelotheca reynaudii*; C.M.I. var No. 219) and yields. In the varieties Dolinskoe 86 and Omskoe 38 infection was reduced by 46.8 and 27.9 per cent., respectively, by hot water treatment and in the former the yield was increased by 29.2 (hot air) and 42.4 (hot water) per cent.

L 22902-66 EWT(m)

ACC NR: AP5025869

SOURCE CODE: UR/0020/65/164/004/0934/0936

AUTHOR: Burlakova, Ye. B.; Gaintseva, V. D.; Slepukhina, L. V.;  
Khrapova, N. G.; Emmanuel', N. M. (Corresponding Member AN SSSR)

37

B

ORG: none

19/32

TITLE: Relationship between the radiation protective and antitumoral  
action of inhibitor-antioxidants

SOURCE: AN SSSR. Doklady, v. 164, no. 4, 1965, 934-936

TOPIC TAGS: radiobiology, radiation protection, radiation sickness,  
radiation biologic effect, carcinoma, alkylphenol, phenol, amine,  
organic nitrogen compound, mouse

ABSTRACT: The radiation protective, antitumorigenic and radiosensitizing properties of a number of inhibitors were determined. Protection against radiation shown by 4-methyl-2,6-diteritary butylphenol, as determined by survival of mice after exposure to 550 r radiation, was maximum at injections of  $C = 50$  mg/kg. At  $C = 100$  mg/kg =  $C_{\text{negative}}$ , the mortality rate equaled that of the control; dosages in excess of  $C_{\text{negative}}$  were considered radiosensitizing. The behavior of all the inhibitors studied--polyphenols, substituted hydroxypyridines,

Card 1/2

I: 22902-66

ACC NR: AP5025869

aminophenols and a stabilized free radical--was qualitatively similar. A linear relationship between the antitumorigenic and radiation protective action of the antioxidants was established in a study of the function of leucosis development retardation with respect to the dosage C therapeutic /C negative. This leads the way to determining conditions for using inhibitors for suppressing tumorigenic processes and in experimental radiation sickness. Orig. art. has: 1 table, 2 figures and 12 formulas.

SUB CODE: 06/ SUBM DATE: 04Mar65/ SOV REF: 007/

Card 2/2 BLG

24 2676 26.2340

S/048/62/026/011/011/021  
B125/B102

AUTHORS: Arifov, U. A., Rakhimov, R. R., Abdullayeva, M., and Gaipov, S.

TITLE: The electron emission from metals induced by light ions<sup>b</sup>

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,  
v. 26, no. 11, 1962, 1403-1409

TEXT: The electron emission from pure molybdenum during bombardment by ions of the hydrogen isotopes and by  $\text{He}^+$  ions is studied in the range of 0.1-0.45 kev to obtain information regarding the effect of the ion mass on the kinetic electron emission. The experimental apparatus comprised the ion source mass separator, principal accelerating tube, receiver part and source of the auxiliary beam of  $\text{Ar}^+$  ions. The pressure of the residual gases was  $2 \cdot 10^{-7}$  mm Hg. The coefficient  $\gamma$  was measured between 1300 and 1400°K. The best target material was found to be molybdenum. In the energy range of 0.1-4.0 kev the target was bombarded only by  $\text{H}_2^+$  and  $\text{D}_2^+$  ions.  $\gamma \sim 6\%$  for  $\text{H}_2^+$  and  $\text{D}_2^+$  at energies up to 300 ev; if the energy, continues to

Card 1/3 Z-4 Ref. S/048/62/026/011/010/021

S/048/62/026/011/011/021  
B125/B102

The electron emission from ...

increase,  $\gamma$  increases monotonically for  $H_2^+$  ions and remains almost constant up to 1 kev for  $D_2^+$  ions. Above this energy,  $\gamma$  increases almost linearly.

$\gamma = f(E)$  is steeper for  $H_2^+$  than for  $D_2^+$ , while  $\gamma = f(v_0)$  is almost equal.

An isotope effect (ions of differing mass being differently retarded during penetration into the metal) is observed only at relatively low ion velocities. The ions with the masses 1, 2, 3, 4 which appear if deuterium exists in the ion source are protons (developing through dissociation of DH molecules), deuterons with a slight admixture of  $H_2^+$  ions,  $DH^+$  ions (not  $H_3^+$  ions), and  $D_2^+$  ions. The dependence of  $\gamma$  on the initial ion energy is shown in Fig. 5. Molecular ions knock out twice as many electrons as atomic ions having the same velocity. The experimental values of  $\gamma$  for all molecular and atomic ions investigated fit onto one almost linear curve. The mass independence of  $\gamma$  is due to the high ion energies. The differences in the absolute values of  $\gamma$  and increase of the function  $\gamma = f(v_0)$  for  $He^+$  and  $H_1^+$ ,  $D_1^+$  is obviously due to the effect of the surplus electron on the  $H^+$  shell. There are 6 figures.

Card 2/7 2

L 23755-66 EWT(1)/EWT(m) LWP(c) JD/JG/AP

SOURCE CODE: UR/0166/66/000/001/0051/0056

ACC NR: AP6008548

AUTHOR: Arifov, U. A.; Gaipov, S.; Ikramova, M.; Rakhimov, R.

ORG: Physics Technical Institute, AN UzSSR (Fiziko-tehnicheskiy institut AN UzSSR)

TITLE: Energy distribution of electrons emitted from films of alkali-haloid compounds subjected to bombardment by He<sup>+</sup> and Ar<sup>+</sup> ions

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 1, 1966, 51-56

TOPIC TAGS: electron emission, secondary electron emission, electron energy, spectral energy distribution, ion bombardment, alkali halide

ABSTRACT: A study of the spectrum of the energy of emitted electrons is important in understanding the mechanism of ion-electron emission from film emitters. The present authors investigated the energy distribution of electrons emitted from NaCl films to Mo during bombardment by He<sup>+</sup> and Ar<sup>+</sup> ions in the 40–2000 ev range. The experimental results presented show that the adsorption and condensation of molecules of alkali-haloid salts on a metal surface leads to substantial variations in the spectrum of the energy of electrons emitted during ion bombardment. An increase in the coefficient of ion-electron emission from a thick film detected by the present authors earlier (DAN UzSSR, 1965, no. 11) is determined by the increase in electron yield with the most probable energy. A decrease in the most probable energy, a simultaneous increase in the total yield with an increase in the thickness of the film, and an absence in the influence of the latter on the maximum energy of secondary electrons are all additional evidence in confirmation of the depth character of ion-electron emission in the region

Card 1/2

L 23755-56

ACC NR: AP6008548

of low energies (potential emission) as well as in the region of relatively high energies (kinetic emission). It is extremely interesting that the energy spectrum of secondary electrons emitted from NaCl is very weakly dependent on the nature and the energy of the bombarding ions. This fact, evidently, is due to the difference in the mechanism of the ion-electron emission from metals and alkali-haloid compound films. Orig. art. has: 4 figures.

SUB CODE: 20 / SUBM DATE: 28Sep65 / ORIG REF: 005 / OTH REF: 003

Card 2/2 UVR

L 36325-66 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) AT/JD/JG

ACC NR: AP6015795

(A,N)

SOURCE CODE: UR/0048/G6/030/005/0896/0900

AUTHOR: Arifov, U. A.; Gaipov, S.; Ikramova, M.; Rakhimov, R. R.

60  
B

ORG: none

21

TITLE: Energy distribution of the electrons emitted from the alkali halide under helium and argon ion bombardment /Report, Twelfth All-Union Conference on the Physical Bases of Cathode Electronics held in Leningrad 22-26 October 1965/

SOURCE: AN SSSR. Izvestiya Seriya fizicheskaya, v. 30, no. 5, 1966. 896-900

TOPIC TAGS: secondary electron emission, energy distribution, alkali halide, thin film, ion bombardment, helium, argon

ABSTRACT: The authors have recorded the energy distribution of secondary electrons emitted under bombardment with 40 to 2000 eV He<sup>+</sup> and Ar<sup>+</sup> ions by NaCl<sup>?</sup> films during their deposition on Mo substrates. The 10<sup>-8</sup> A/cm<sup>2</sup> beam of monoenergetic ions was incident normally on the 23 x 3 x 0.03 mm Mo target, on which there was also incident at 45° a jet of NaCl vapor. Secondary electrons leaving the target at a fixed angle traversed a 5.7 cm radius 127° deflection electrostatic analyzer and were detected with an electron multiplier. A saw tooth potential was applied to the analyzer plates and the energy distribution of the secondary electrons was displayed directly on an oscilloscope screen and was recorded cinematographically. The molybdenum substrate was out

Card 1/2

L 36325-66

ACC NR: AP6015795

gassed before the measurements at temperatures above 2300° K, and the residual gas pressure during the measurements was  $2 \times 10^{-7}$  mm Hg. No charging of the films was observed at film thicknesses of tens of monolayers. During deposition of the NaCl film the total secondary emission increased rapidly, the width at half maximum of the distribution curve decreased somewhat, and the position of the maximum shifted slightly toward the lower energies. The energy distributions of the secondary electrons emitted from the molybdenum substrate under He<sup>+</sup> and Ar<sup>+</sup> bombardment were significantly different, the distribution recorded with He<sup>+</sup> bombardment being considerably the broader, but the distributions of the electrons emitted from the NaCl films under bombardment by the two different ions were very similar. This difference in the behaviors of the metal substrate and the alkali halide film is ascribed to a difference in the mechanisms responsible for the electron emission in the two cases. As the thickness of the NaCl film increased, the maximum energy of the secondary electrons practically did not; this, together with the increase of the total emission with increasing film thickness, is regarded as evidence of the depth character of the emission in both the potential emission and the kinetic emission energy ranges. Orig. art. has: 4 figures.

SUB CODE: 20/

SUIM DATE: 00/

ORIG REF: 005/

OTH REF: 003

Card 2/2 *pft*

24.4400

S/250/62/006/004/001/001  
I024/I224**AUTHORS:** Rubanov, A. S., Metel'skiy, A. S., Gairilova, Ya. N., and Kogan, A. Sh.**TITLE:** Calculation of the entropy of probability distributions of the co-ordinates and momenta of an harmonic oscillator**PERIODICAL:** Akademiya nauk Belaruskay SSR. Doklady, v. 6, no. 4, 1962, 220-222**TEXT:** The purpose of the article is to check the assumption that the co-ordinate and momentum entropies in a harmonic oscillator increase with the number of the stationary state level (Rubanov A. S., Stepanov B.I., DAN SSSR, 140, 1, 1961). The entropy of the probability distribution of the above variables for the  $v$ -level is found from the expression

$$H^v - \ln a = - \int_{-\infty}^{+\infty} \frac{e^{-y^2}}{\sqrt{\pi} 2^v v !} H_v^2(y) \ln \frac{e^{-y^2}}{\sqrt{\pi} 2^v v !} H_v^2(y) dy. \quad (4)$$

$a = \sqrt{\frac{h}{\mu \omega}}$  for the entropy of the co-ordinate distribution and  $a = \sqrt{\mu \omega h}$  for the entropy of the momentum distribution, where  $\mu$  is the mass and  $\omega$  the frequency of the oscillator. In calculation, the integral taken twice, with the lower limit of 0 and the upper limit of  $b$  was chosen so that the value of the integral remained unchanged with the increase of  $b$ .

Card 1/2

Calculation of the entropy...

S/250/62/006/004/001/001  
1024/1224

The integral was evaluated by the Simpson rule with a step  $h=0.001$ , on an electronic computer "Minsk-1". The coordinate and the momentum entropies were calculated for the first 12 levels of the oscillator. Rubanov and Stepanov found the upper limits of the coordinate and momentum entropies:

$$H_q^v - H_q^0 = H_p^v - H_p^0 \leq \frac{1}{2} \ln 2(v + \frac{1}{2}). \quad (6)$$

For  $v \leq 12$ ,  $H_q^v - H_q^0 = H_p^v - H_p^0$  are less than  $\frac{1}{2} \ln 2(v + \frac{1}{2})$  by about 0.5–0.6 of the coordinate and the momentum entropies with the increase of  $v$  was confirmed. The difference  $[(H^v - H^0) - \frac{1}{2} \ln 2(v + \frac{1}{2})]$  was found to increase with the number  $v$ , tending to a certain limit as  $v \rightarrow \infty$ . The values of  $[H^v - H^0]$  and the corresponding differences of the upper entropy limits are given. These differences decrease as  $v$  increases. There are 2 tables.

ASSOCIATION: Institut fiziki AN BSSR (Institute of Physics AS BSSR). Institut matematikii i vychislitel'noy tekhniki AN BSSR (Institute of Mathematics and Computational Science of the AS BSSR)

PRESENTED: by B. I. Stepanov, Member of the Academy of Sciences BSSR

SUBMITTED: December 6, 1961

Card 2/2

*Gais, I. M.*

CZECHOSLOVAKIA / Pharmacology, Toxicology, Histamine and  
Antihistaminic Agents

U-4

Abs Jour : Referat Zh.-Biol., No 1, 1958, No 3419

Author : Frantsova V., Gais I.M.

Inst : Not given

Title : A Comparison of the Exchange of Diphenhydramine Hydrochloride and its Analogues in Rats.

Orig Pub : Chemotherapeutika. I. Farmac. sympos., Praha, 1956, 50

Abstract : No abstract.

Card : 1/1

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614010013-5"

CZECHOSLOVAKIA/Microbiology - Microbes Pathogenic for Man and  
Animals. Bacteria. Mycobacteria.

Abs Jour : Ref Zhur Biol., No 22, 1958, 99467

Author : Frants, Z., Gais, I.M., Goreshovskiy, O.

Inst : -

Title : The Anti-Tuberculous Milk Factor.

Orig Pub : Chemotherapeutika. I. Farmac. sympos., Praha, 1956,  
103-104

Abstract : Milk serum (whey) and its dialysate inhibit the growth  
of tubercle bacilli on Kirchner's medium. The active  
substance is adsorbed on activated carbon, is eluted  
with acetic acid, and contains a lipophilic and hydro-  
philic fraction. -- L.M. Model'

Card 1/1

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Occurrence of the finch (Carduelia flammea L.) in Krkonose National Park. p. 57.  
Vladimir Balthasar's Zlatenky. Fauna CSR, sv. 3 (Chrysidoidea. Fauna of Czechoslovakia. Vol. 3); a book review. p. 60.  
CCHRANA PRIRODY. (Ministerstvo kultury. Statni pece o ochranu prirody) Praha.  
Vol. 11, no. 2, Mar. 1956.

SOURCE: EEAL - LC Vol. 5 No. 10 Oct. 1956

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A faunal description of bats found in Czechoslovakia p. 1/1 (Ochrana Přírody  
Vol. 11, no. 6, July 1956 Praha)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

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Effect of cold on the living organism. Cesk. fysiol. 7 no.4:337-338  
July 58.

1. Laborator pro vyzkum obratlovcu CSAV, Brno  
(COLD, effects,  
biol. aspects (Cz))

GABRIEL, J., MUDr.; NOVAKOVA, H., MUDr.; STPNAD, L., prom. ekonom.;  
GAISLER, J. MUDr.; BIDMAN, J., MUDr.; HORAK, Fr., Technicka  
spoluprace CERNA, V.

Study of a group of deceased patients in the University Hospital  
in Hradec Kralove for a 1-year period. Cesk. zdrav. 12 no.11:  
543-555 N° 64.

1. Katedra organizace zdravotnictvi lek. fak. Karlovy University  
a Krajsky ustav narodniho zdravi v Hradci Kralove za odborne  
spoluprace klinickych pracovniku.

Anatomy

CZECHOSLOVAKIA

GATSLER, Jiri; Affiliation not given 7.

"Morphology of Vertebrates."

Prague, Vestnik Ceskoslovenske Akademie Ved, ol 75, No 5, 1966,  
pp 720 - 721

Abstract: There are two main fields of investigation in the morphology of vertebrates: the first is concerned with the detailed knowledge of the body of vertebrates, and uses the investigation methods of up-to-date technique to study the structure of organs, tissues, and cells. This field is close to physiology, biochemistry, and generally to medicine. The second field compares the morphology of individuals, or of certain groups of vertebrates, and is concerned with the determination of the development, functions, and systems of a species. Plans for the establishing of the Department of Morphology at the Institute for Vertebrates at the Czechoslovak Academy of Sciences are discussed. Study visits to institutes of morphology in the USSR, West Germany, and France are described. Help obtained from medical institutions in Czechoslovakia is discussed. No references.

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